

WellGate 3802A and 3804A application Note

Date: June-01-2007

This application note is given several real application cases which were happened frequently from world wide customers. Welltech will release an updated firmware version by early of June-2007. Some application cases are related to the latest released firmware version.

FXO Application case:

Case 1: Select outgoing call to the desired FXO port

Case 2: Selection call outgoing to the desired device (WellGate 3804A).

Case 3: Forward incoming call to next FXO port automatically if it is busy

Case 4: One-stage-dial. User (A) wants to dial specific code + C's PSTN phone number to C analog phone directly.

Case 5: One-stage-dial. User wants to dial C's PSTN phone number to C phone directly.

Case 6: Two 3804A connect: One-stage-dial and P2P mode

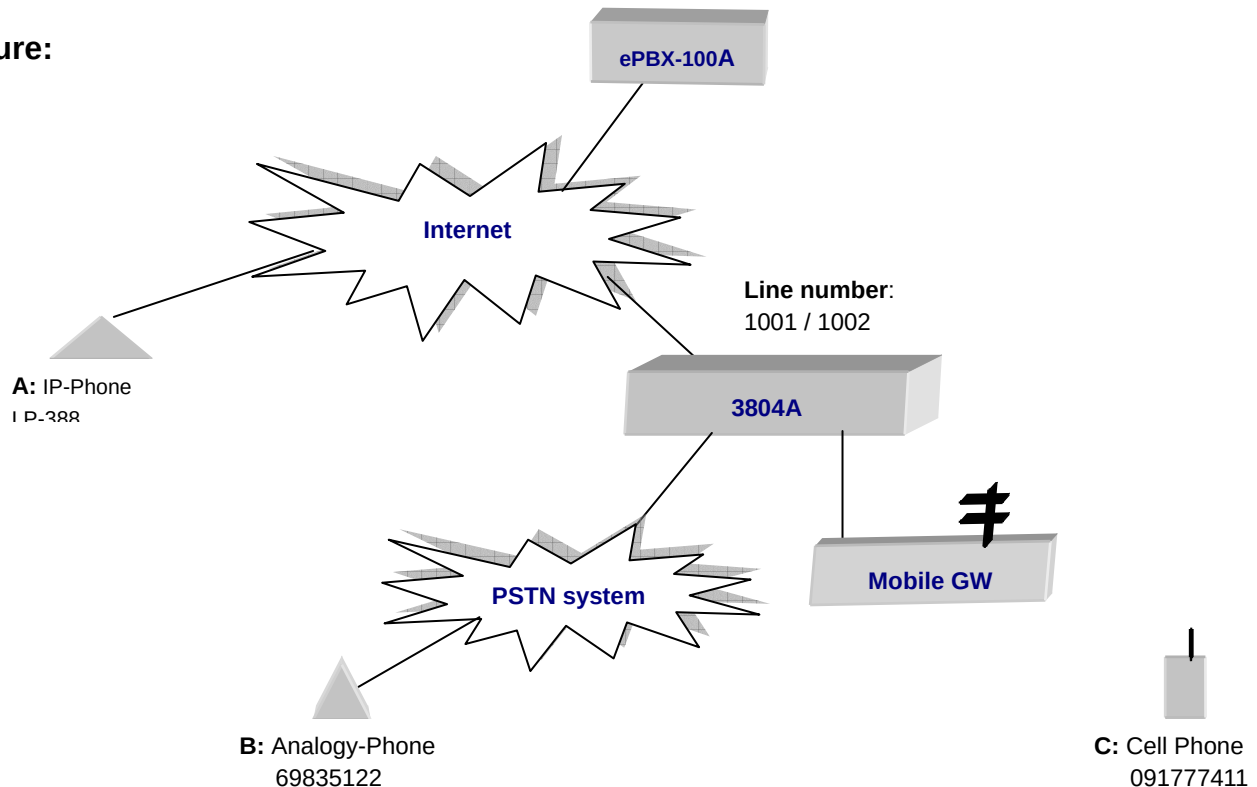
Case 7: Send Calling line ID of PSTN phone number to IP side through 3804A FXO.

Case 8: Security call from PSTN side through 3804A FXO to IP side. (**Note: The device only supports call from PSTN side, the IP side is not yet ready.**)

Case 9: Hotline to the desired device or hotline to IVR of ePBX-100A automatically without hearing IVR of 3804A.

Case 1: Select outgoing call to the desired FXO port

Figure:



Description:

At the default setting, the User (A) dials any phone number (except prefix: 09), he can be reached to PSTN system or IP side through FXO port #1. In Specific case, if user (A) dials phone number (prefix: 09) he want to reach to Mobile GW through FXO port #2.

Settings:

“Route table”

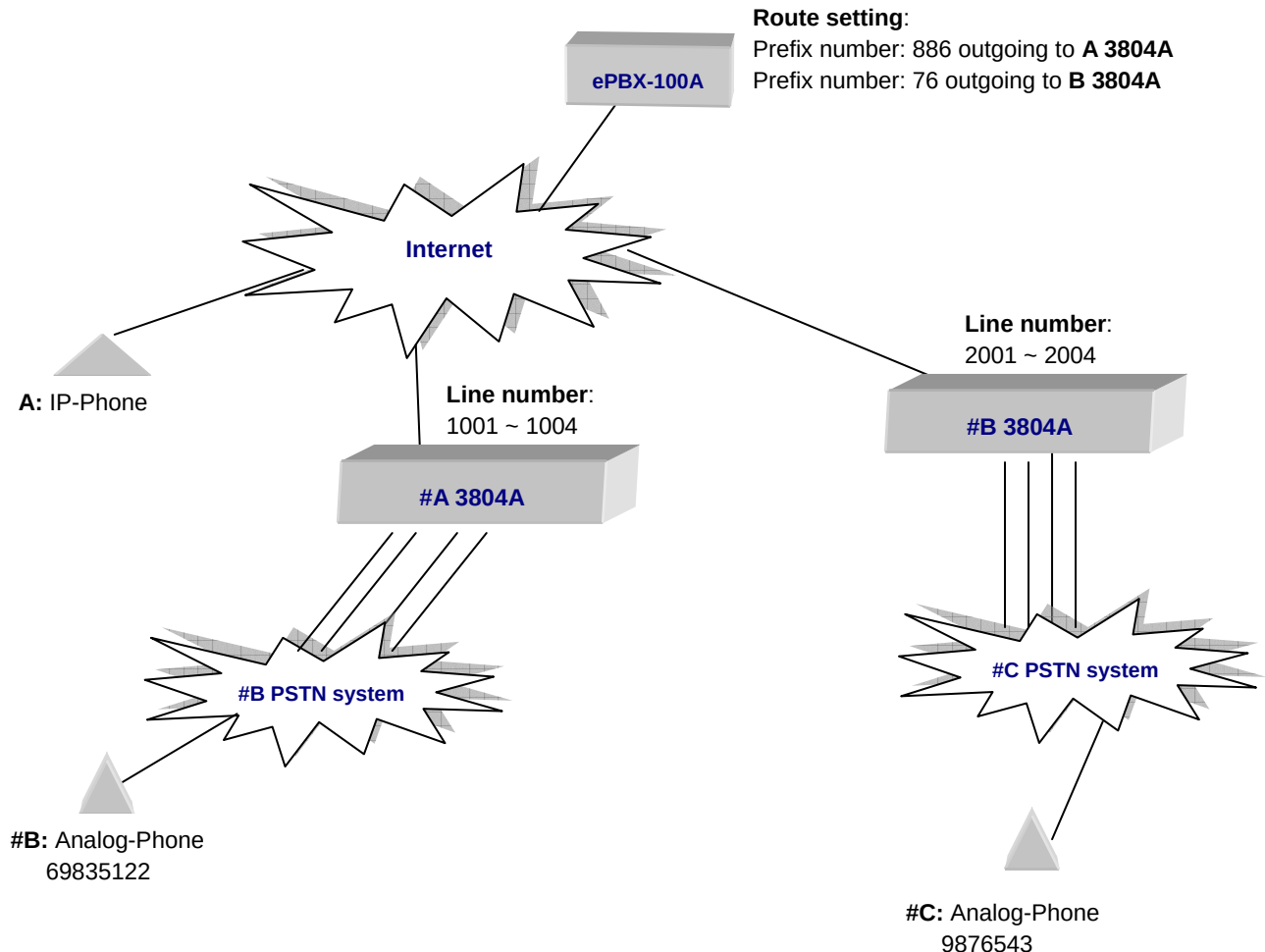
For example:

Selection call (prefix: 09) outgoing to FXO port #2 that its line number is 1002 and min & max digit length range (8~9).

Routing Table Configuration							
Index	Prefix	Destination	E.164	Min Digits	Max Digits	Hunt Method	Drop
IP Default		FXO	x				
FXO Default		IP	x				
1	09	FXO	1002	8	9	NONE	OFF

Case 2: Select outgoing call to the desired device (WellGate 3804A)

Figure:



Description:

When A dials prefix number 886+any PSTN phone number, it can be called to #B PSTN side system through **A 3804A** to reach #B analog phone. The other way, when dialing prefix 76+any PSTN phone number, it can be called to #C PSTN side system through **#B 3804A** to reach to #C analog phone.

Settings:

“Route”

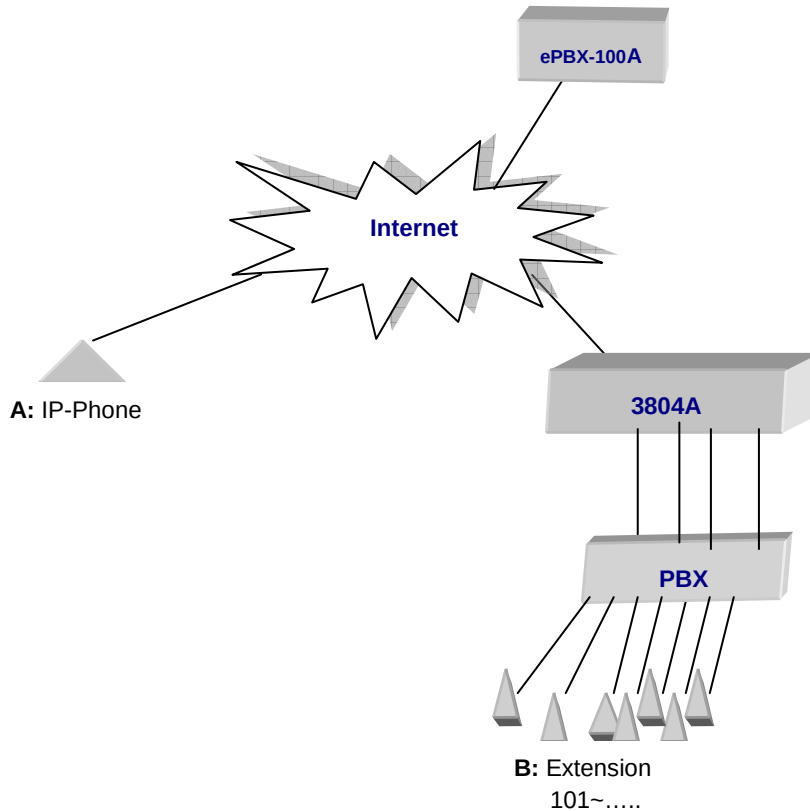
For example:

#A 3804A: when 3804A receives 886+69835122 message from ePBX-100A, it will drop incoming number prefix: 886 first, then dials out 69835122 to PSTN system automatically.

Routing Table Configuration									
Index		Prefix		Destination	E.164	Min Digits	Max Digits	Hunt Method	Drop
IP Default				FXO	The setting will drop incoming call prefix number: 886				
FXO Default				IP	x				
1		886		FXO	x	9	12	NONE	ON

Case 3: Forward incoming call to next FXO port automatically if it is busy

Figure:



Description:

When port 1 of FXO is on busy status and someone also wants to call to the same FXO port at the same 3804A from IP to FXO port.

Settings:

“Line Configuration: hunt group”

For example:

The same hunt group value means they are on the same group, when port1 is busy it will automatically forward to port 2 (Assume the call is from IP side to FXO port).

See the following Web page configuration:

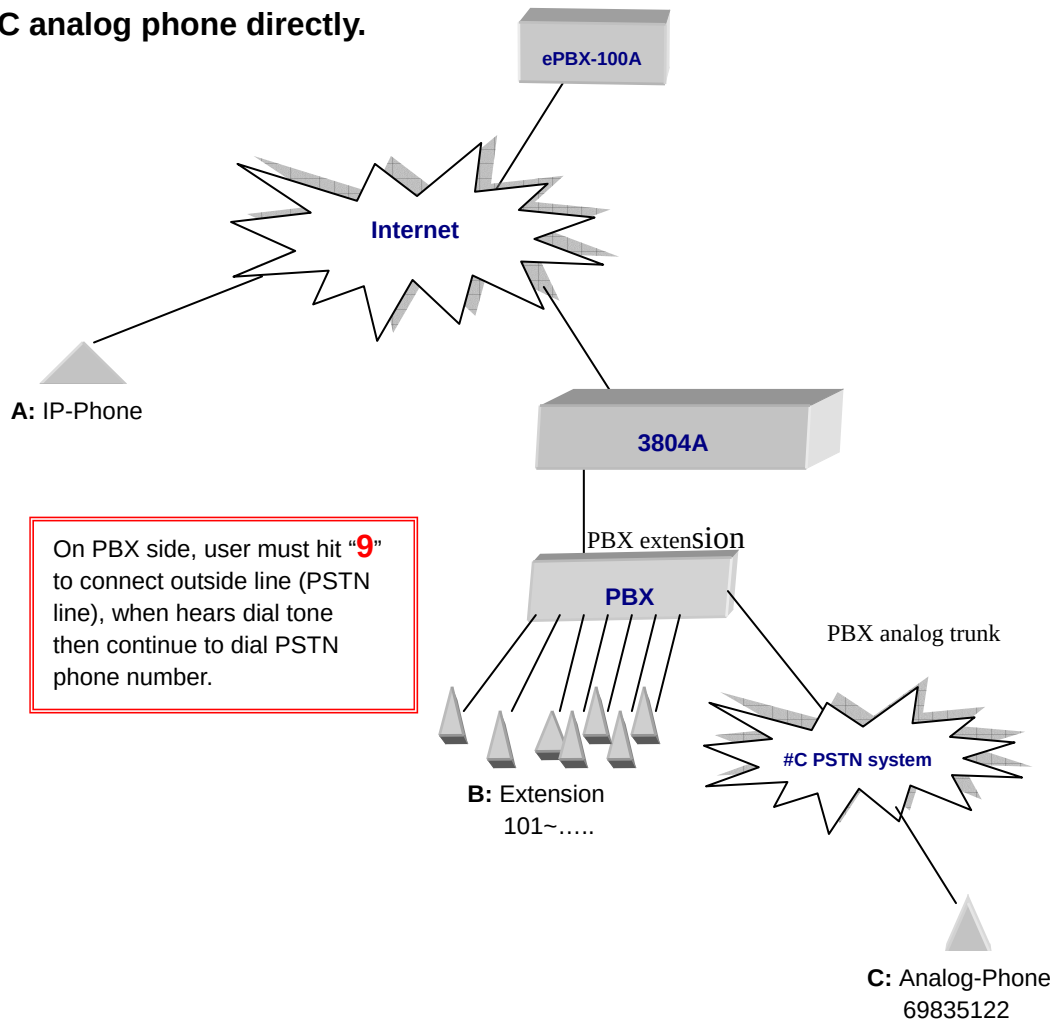
Line 1 and Line 2 are at the same group. Line 3 and Line 4 are at another group.

Line Configuration							
Line1(LINE):	Type: FXO	Hunting Group: 1	Hot Line: x	Fwd. Type: Disable	Fwd. Number: x	Registration: Not Registered	Status: Ready
Line2(LINE):	Type: FXO	Hunting Group: 1	Hot Line: x	Fwd. Type: Disable	Fwd. Number: x	Registration: Not Registered	Status: Ready
Line3(LINE):	Type: FXO	Hunting Group: 2	Hot Line: x	Fwd. Type: Disable	Fwd. Number: x	Registration: Not Registered	Status: Ready
Line4(LINE):	Type: FXO	Hunting Group: 2	Hot Line: x	Fwd. Type: Disable	Fwd. Number: x	Registration: Not Registered	Status: Ready

OK

Case 4: One-stage-dial. User (A) wants to dial specific code + C's PSTN phone number to C analog phone directly.

Figure:



Description:

User (A) wants to dial number (9-69835122) to connect C analog phone directly.

Settings:

"Pause Configuration"

For example:

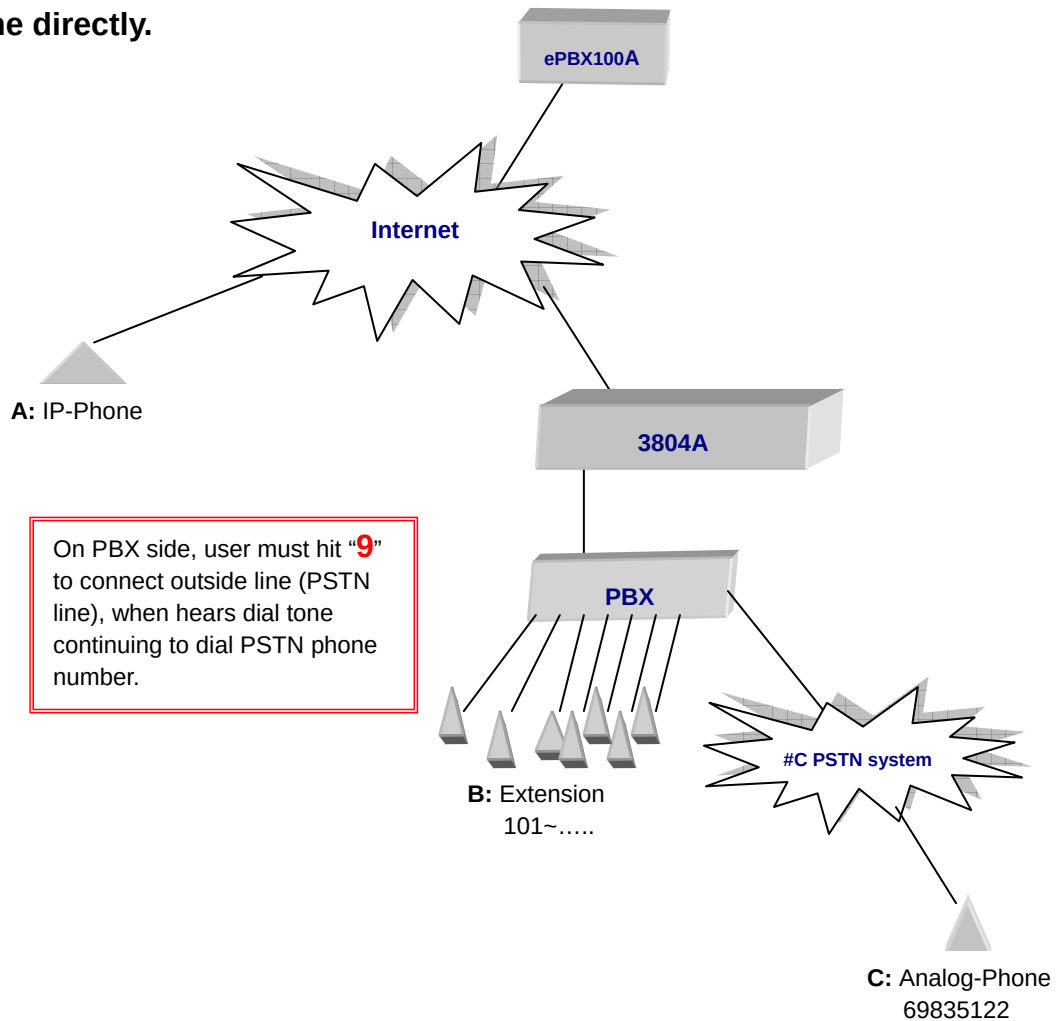
It means when FXO receives call from IP side and prefix: 9, FXO will dial digit "9" DTMF to PBX first and pause 3 seconds (wait PBX to access an analog trunk outside line) then continue dialing 69835122 to PBX.

Pause Configuration

Index	Prefix	Delay
1	9	3

Case 5: One-stage-dial. User (A) wants to dial C's PSTN phone number to C analog phone directly.

Figure:



Description:

User (A) wants to dial number (69835122) to connect C directly.

Settings:

"Prefix Configuration" and "Pause Configuration"

For example:

Step 1: Prefix Configuration: Select specific prefix number (69) and insert number "9", FXO will dial out with "969835122"

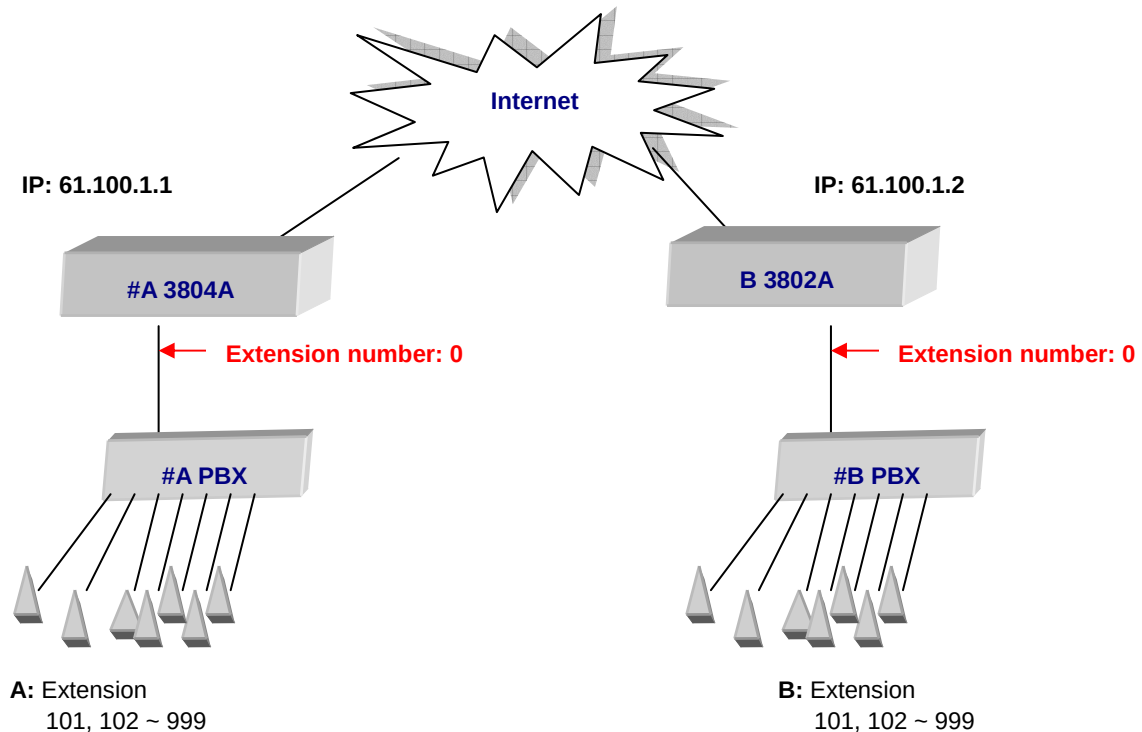
Step 2: Pause Configuration: FXO dials digit "9" DTMF to PBX first and pause 3 seconds (wait PBX to access an analog trunk outside line) then continue dialing 69835122.

Prefix Drop/Insert Configuration			
Index	Prefix	Drop	Insert
1	69	Disable	9

Pause Configuration		
Index	Prefix	Delay
1	9	3

Case 6: Two 3804A connect: One-stage-dial and P2P mode

Figure:



Description:

User on A side #A PBX extension dial '0' to ring #A 3804A FXO port and hears voice prompt from #A 3804A FXO port, then continue to dial any extension numbers (101 ~ 999) to connect #B 3802A to #B PBX's extension.

Settings:

"SIP configuration" and "PBook configuration"

For example:

Set "Pbook Configuration" of #A 3804A. (PBook WEB page can only configure 5 records phone book, so if you want to set more than 5. you must configure them from Telnet command line or Console line.)

See Web browser configuration at #A 3804A phone book as follows:

It means when on A side extension user connects to FXO at #A 3804A then dials any line number (prefix: 1 ~ 9), #A 3804A will send the message to IP: 61.100.1.2 at #B 3802A.

Phone Book						
Index	Name	E164	IP Address	Port	Drop	Insert
1	B 3802	1	61.100.1.2	5060	Disable	
2	B3802	2	61.100.1.2	5060	Disable	
3	B 3802	3	61.100.1.2	5060	Disable	
4	B 3802	4	61.100.1.2	5060	Disable	
5	B 3802	5	61.100.1.2	5060	Disable	

COM4 9600 - SecureCRT

File Edit View Options Transfer Script Tools Window Help

Phone book information and configuration

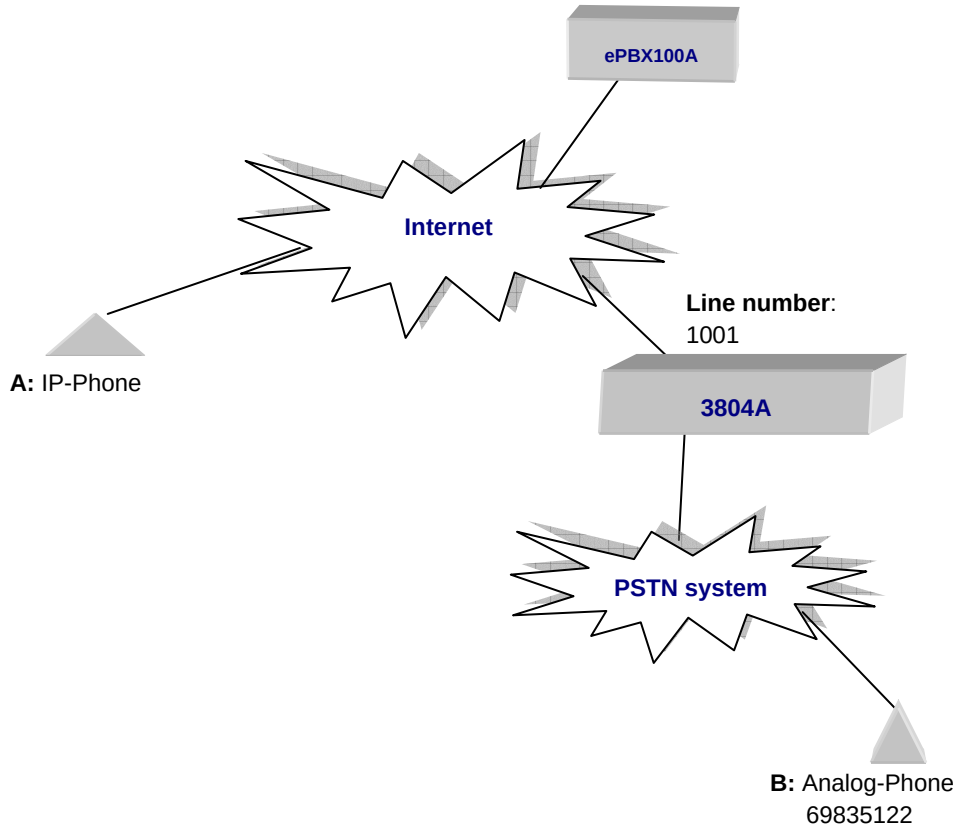
Index	Name	E.164	IP	Port	Drop	Insert
1	B 3802	1	61.100.1.2	5060	Disable	
2	B3802	2	61.100.1.2	5060	Disable	
3	B 3802	3	61.100.1.2	5060	Disable	
4	B 3802	4	61.100.1.2	5060	Disable	
5	B 3802	5	61.100.1.2	5060	Disable	
6	B 3802	6	61.110.1.2	5060	Disable	
7	B 3802	7	61.100.1.2	5060	Disable	
8	B 3802	8	61.100.1.2	5060	Disable	
9	B 3802	9	61.100.1.2	5060	Disable	

usr/config\$

Ready Serial: COM4 16, 13 16 Rows, 80 Cols VT100

Case 7: Send Calling line ID of PSTN phone number to IP side through 3804A FXO.

Figure:



Description:

B calls to IP-Phone (A) through 3804A and user would like to see the LCD display B's PSTN Phone number (69835122) instead of IP Line number of 3804A (1001).

Settings:

1. "System configuration: Caller ID Type and Cid change"

From both commands combination, you can choose to send IP line number of FXO port or calling line ID number from PSTN switch to be sent to IP side.

Caller ID Type: FSK/ ETSI/ DTMF. There are three types of Caller ID from local PSTN switch. Please make sure which type of Caller ID at your local PSTN system supported.

Cid change: on/off. This feature is to replace existing IP line number 1001 of 3804A FXO port with calling line ID number from PSTN switch if it sets to ON. WG3804A will use this calling line ID number to send to remote IP side.

2. a. disable Caller ID + Cid change: off =>

From:"1001"<sip:1001@192.168.32.253:8088>;tag=c0a820c8-13c4-ca-32037-2

Disable to detect Calling line ID from PSTN switch. Also, disable to change calling ID to be sent to IP side. WG3804A will use this FXO line number to send to remote IP side.

b. enable Caller ID + Cid change: off =>

From:"69835122"<sip:1001@192.168.32.253:8088>;tag=c0a820c8-13c4-ca-32037-2

Enable to detect Calling line ID from PSTN switch. Also, disable to change calling ID to be sent to IP side and using the FXO port IP line number to send to remote IP side..

c. enable Caller ID + Cid change: on=>

From:"69835122"<sip:69835122@192.168.32.253:8088>;tag=c0a820c8-13c4-ca-32037-2

Enable to detect Calling line ID from PSTN switch. Also, enable to change calling ID to be sent to remote IP side. WG3804A will use detected calling line ID number from PSTN switch to send to remote IP side.

For example:

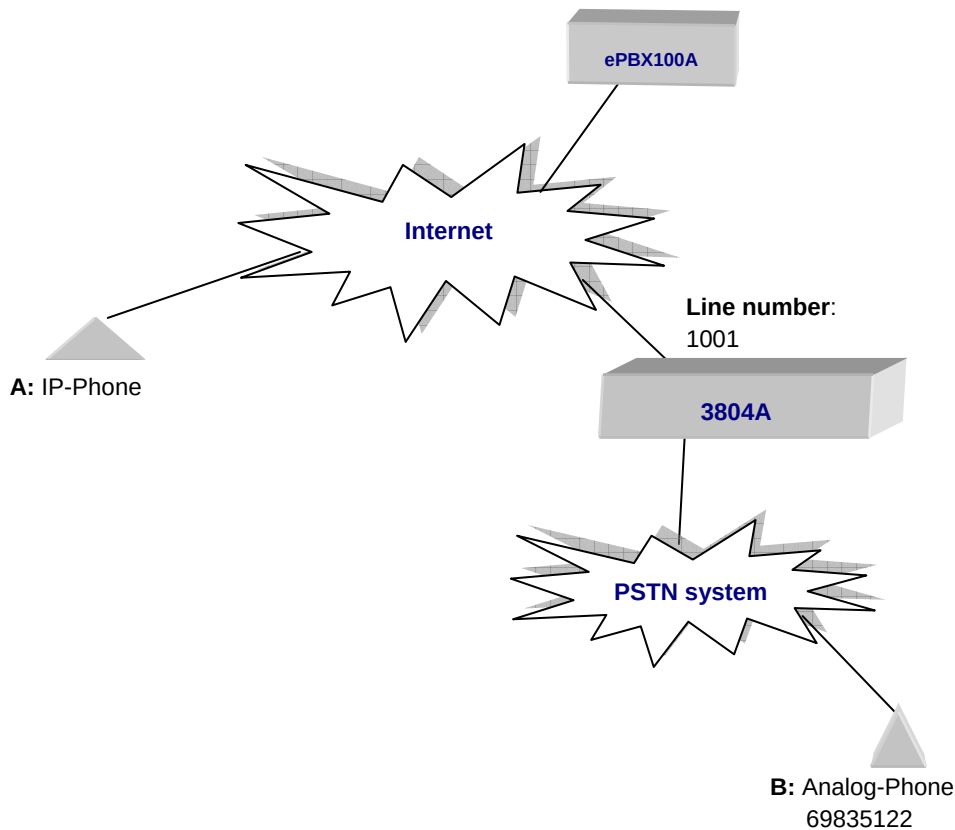
About **c case** (enable CallerID + Cid change: on), it must be supported by SIP Proxy server (softswitch) otherwise it may be rejected this invite message.

Note: If FXO still can't detect Caller ID, please adjust "Ring Before Answer" command to 3.

System Configuration	
Keypad Type:	☐ In-Band ☒ RFC2833 ☐ INFO
Caller ID Type:	☒ None ☐ FSK ☐ ETSI ☐ DTMF
Inter Digit Time:	3
Ring Time:	200 ms
Ring Before Answer:	1
Flash Time(1~200, 1->10ms):	30
End of Dial:	☒ Enable ☐ Disable
Silence Detection:	☐ Enable ☒ Disable
Current Drop:	☐ Enable ☒ Disable
Fixed DTMF Tone:	☐ Enable ☒ Disable
Disconnect(no rtp received for more than 3 second):	☐ Enable ☒ Disable
Cid change:	☐ Enable ☒ Disable
OK	

Case 8: Security call from PSTN side through 3804A FXO to IP side. (Note: The device only supports call from PSTN side, the IP side is not yet ready.)

Figure:



Description:

When B calls to FXO of 3804A, user must enter password then continue dialing IP-Phone number.

Settings:

“FXO password”

For example:

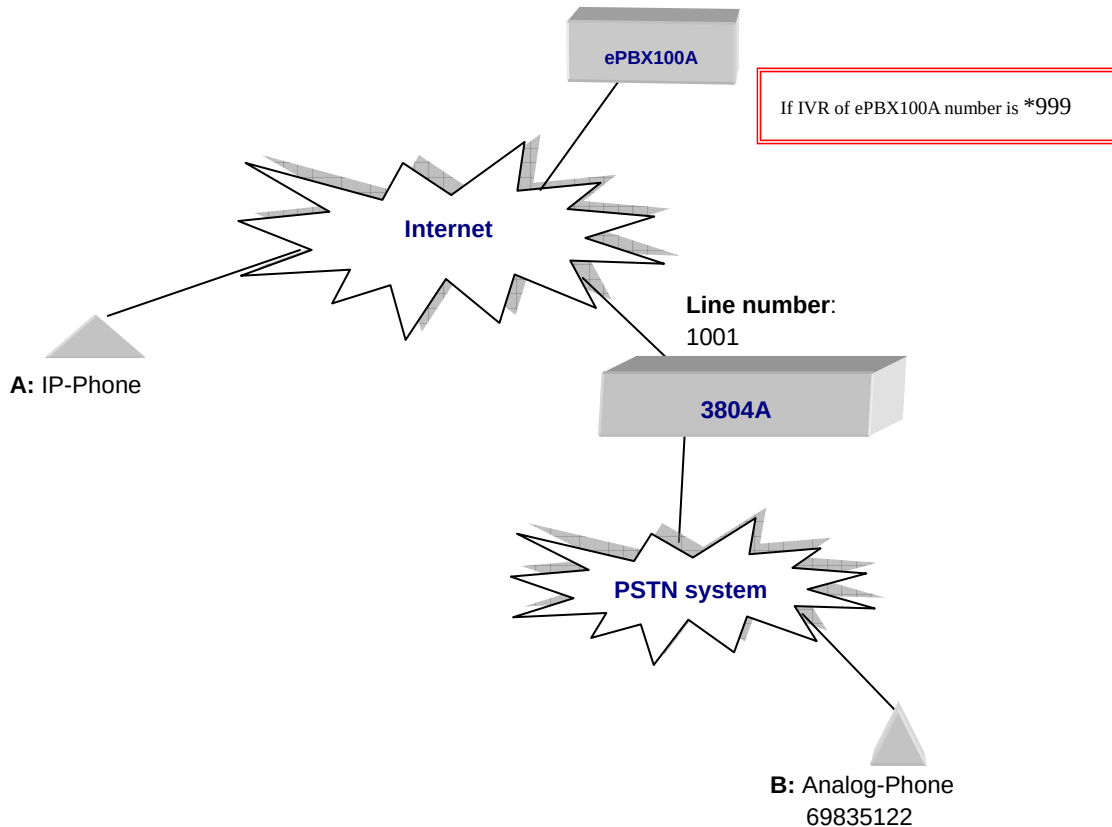
When B calls to FXO, you will hear ASK PIN voice prompt (Please enter your PIN code, end by the # sign.) then you must input PIN code. If it matches your password setting at web page correctly, you will access next step to hear IVR Greeting from 3804A FXO.

(Note: Because WEB page can only set 5 records of password, you must set them from Telnet command line or Console line If you want to set more than 5.)

FXO Password Configuration		
Index		Password
1		123
2		456

Case 9: Hotline to the desired device or hotline to voice greeting IVR of ePBX-100A automatically without hearing IVR of 3804A.

Figure:



Description:

When user has personal IVR greeting on ePBX-100A, he hopes it can automatically hotline to ePBX-100A IVR directly when there is an incoming call from PSTN phone to ePBX-100A through 3804A. If you want to direct FXO incoming call to an operator of ePBX-100A (i.e. operator number is 101 at ePBX-100A), please replace FXO gateway hotline number to 101 instead of *999. Please refer to ePBX-100A user manual in details.

Settings:

"Line Configuration: hotline"

For example:

When B calls to FXO, it will auto dial *999 to ePBX-100A without hearing IVR of 3804A.

Line Configuration							
Line1(LINE):	Type: FXO	Hunting Group: 1	Hot Line: *999	Fwd. Type: Disable	Fwd. Number: x	Registration: Not Registered	Status: Ready
Line2(LINE):	Type: FXO	Hunting Group: 2	Hot Line: x	Fwd. Type: Disable	Fwd. Number: x	Registration: Not Registered	Status: Ready
Line3(LINE):	Type: FXO	Hunting Group: 3	Hot Line: x	Fwd. Type: Disable	Fwd. Number: x	Registration: Not Registered	Status: Ready
Line4(LINE):	Type: FXO	Hunting Group: 4	Hot Line: x	Fwd. Type: Disable	Fwd. Number: x	Registration: Not Registered	Status: Ready

OK